American Farmer,

AND SPIRIT OF THE AGRICULTURAL JOURNALS OF THE DAY.

"O Fortunatos nimium sua si bona norint
"Agricolas." . . . . . *Virg.*

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MANURES:—A PRIZE ESSAY.

By S. L. Dana.

Section Fifth.

Of the action of the Salts of Cattle Dung.

Here it is we find ourselves thrown on a sea of opinions, without chart, compass, or pilot, if we trust to the conflicting theories which have been set up for landmarks and light-houses. Let us therefore, reader, trust to ourselves, aided by the little chemistry we have learned from the preceding remarks about the composition of salt.

I have endeavored to impress on your memory, that the term salt is very comprehensive. But then, to encourage one, it is also to be remembered, that salts are compounds of alkalies, earths, and metals with acids. Now the earths, alkalies, metals, may be united to each of the known acids, (and their name is legion,) yet you may not, by this change of acids, alter the nature of the earth, alkali, or metal. That always remains the same; every time you change the acid, you alter the character of the salt. Thus soda may be united to oil of vitrol and form Glauber's salt, or to aqua-fortis and form South American saltpetre, or to muriatic acid and form common table salt. The soda is called the base or basis of this salt, that is always soda, you do not change its character by changing the acid. To give another example, lime may be united to carbonic acid and form chalk, or marble, or limestone, or it may be united to oil of vitriol, and form plaster of Paris, or to phosphoric acid and form bone-dust. Now, in each case, the base of the salt, that is, the lime, remains unchanged; but, changing the acid, we change the nature of the salt, and of course its effects will be different. Now it is plain, that where the base of the salt remains the same, that will always act the same, but different effects will be produced by different acids. Each base acts always one way, but each has an action to every other. Each acid acts also one way, but each has an action distinct from every other; impress this on your mind. Reflect upon it a moment, and you will perceive that salts produce different effects, according to the nature of their acid. Now this may be illustrated thus: you take every day, probably, with your every meal, common salt, that is, soda, a base, united to muriatic acid. Your digestion and health are all the better for it. You give your cattle a little salt. It does them good. Suppose now you change the acid of that salt, leaving soda, its base, in the same quantity you daily take. Instead of the muriatic, suppose you substitute the nitric acid, or, what is the same thing, suppose you use saltpetre from Peru, instead of common salt. You need not be told, that you would poison yourself and your cattle by so doing. You can drink, I dare say you have, cream of tartar punch. You feel the better for it. It is refreshing, cooling, opening. Now cream of tartar is a salt of potash; it is potash and tartaric acid. You have a fever. Your doctor gives you a sweat with Silvius's salt, that is, acetate of ammonia, a salt composed of that and vinegar; or you take, perhaps, an effervescing draught, formed of lemon juice and pearl-ashes. All does you good. But suppose now you change these cooling, vegetable acids for a mineral acid, say oil of vitriol. You may not take potash, united with a dose of oil of vitriol equivalent to the tartaric acid in the cream of tartar, without serious injury. So is it, reader, in farming, the acids of some salts are not only harmless, but beneficial to plants; others are actual poisons. In the first case, salts help to nourish plants, as common salt helps to nourish yourself; in other cases, they poison plants, just as they would impair your constitution, perhaps kill you. But it is to be remembered, as in our own case, even those that poison, in a small dose become medicines, so, in plants, a small dose is not only good, but truly essential. Now if we divide the acids into two classes, the nourishers and the poisoners, such will also be the nature of the salts. When we therefore attempt such a general division of the salts, it may be said that all the acids derived from the vegetable kingdom are harmless; so are the acids called mineral, yet whose components are, in part, like those of the vegetable acids; for instance, aqua-fortis or nitric acid. But the true mineral acids are poisonous, such are oil of vitriol and spirits of salt. One thing is here to be borne in mind. It must never be out of sight, in trying to understand how salts make plants grow. You cast your salt upon the ground, it lies there, no action occurs. It rains; your salt is dissolved and disappears; it seems to do good. Cast your salt now among sprouting seeds and growing roots; here is life. Well now, life is just as much a power or force as electricity is. It exerts its force, no matter how; that is quite another consideration. I say, life exerts its force here to separate the acid and the base of a salt, just like a chemical force. We can and do separate the components of salts by other substances; nay, we do it by electricity alone.

Now this is all which it is necessary for you to know, and to understand about this action of plants upon salts; it does disunite the components of the salts. What is the consequence? The alkali, earth, and metal act as such, the same as if no acid was present. The acid acts by itself; if it is a nourisher, it helps the plant; if it is a poisoner, it hurts it. It produces either a healthy, green crop, the effect of alkali, or a stunted, yellow, sickly plant, the effect of acids. Now neutralize this acid, kill it. You see your crops start into luxuriance, and reap where you have strewed. So much for illustration. Let us now apply this view of the action of salts to those contained in cattle dung. In the first place, we have salts of potash, of soda, of lime; these are the most abundant and active; then we have salts of iron, manganese, of clay, and magnesia. These last, existing in small proportions, may be thrown out of the account, bearing in mind, however, that, though we set these aside, a plant does not; they enter equally with the others into its composition. Let us begin with the salts. It is found combined in cattle dung, first, with a vegetable acid, the acid of mould. It is a nourisher of plants. Secondly, with sulphuric acid or the acid of sulphur, called oil of vitrol. This is one of the poisoners, existing only in small proportion in cow dung; it ministers to the wants of a healthy plant. The same is true of the common salt, or the muriate of soda of dung. If it existed in larger quantities, it would poison the plants to which it might be applied. The next salts are those of lime, phosphate, and sulphate of lime, or lime united to sulphuric and phosphoric acid, forming plaster and bone dust. The acids here, if abundant, would have a decided bad influence, they are poisoners; but the carbonic acid, in the carbonate of lime, is a nourisher. Now from the small quantity in which these all exist in cattle dung, they act only beneficially. But if you apply a great excess, even of cattle dung, you may be sure of an unfavorable result. It will be produced by the acids of those salts which we have called poisonous. To continue our remarks on the acids of salts of dung, it is to be observed, that they act also upon the soil.

They decompose that. That is, they extract from the soil alkalies, or other substances, like those in the original salt. Now though applied, as they must be, in very small doses in cattle dung, yet, because of their decomposing action on soil, they continually renew themselves, they last till their acid is taken up to supply the wants of growing plants. Let us now, reader, if you understand how the acids of the salts of dung act, turn to the bases or the alkalies and metals and earths of these salts. What is their action? What purpose do they serve in dung applied as manure? First, they enter into and form a part of the living plants, they form a part of its necessary food, as much as do the constituents of mould. Secondly, when these alkalies and metallic bases are let loose, by the disunited power of a growing plant, then they act as alkalies upon mould. They hasten decay, render mould more soluble, fit it to become food for plants. This account of the action of mould and salts in cattle dung may appear to you, reader, long and hard to be understood. I do request you not to pass it over on that account. A patient reading, perhaps some may require two or more, readings, will put you in possession of all you need know to understand the why and the wherefore of the action of mould, and salts of whatever manure may be used. What has been said of the action of mould and salts in cattle dung, is equally applicable to all manures. If, then, you bend your bones to this subject, and master it, your labor of understanding the action of other manures will be reduced to the mere statement of the several substances which they may contain. We therefore proceed to point out other manures, composed of the droppings of animals.

Section Sixth.

Of night soil, Hog Manure, Horse and Sheep Dung.

These have not all been analyzed with the same degree of care and as often as has cattle dung; some, as for instance, night soil, has been examined thoroughly but once. Now it is not quite fair to base our reasoning upon these single analyses, and say that this or that manure contains this or that salt in greater or less quantity than another.

The quantity and kind of salts are materially affected by several circumstances, which will be considered in the next section. An analysis, made when the animal is fed and worked one way, will vary from the result which would be obtained when the circumstances are varied. It is, therefore, quite useless, in the general consideration of the composition of manures, to enter upon the details of each. General results, general expressions of facts, are sufficient for understanding the nature of animal droppings. It is well ascertained, however, that all these droppings, of various animals, contain essentially the same salts as does cattle dung. They all contain portions of each of the substances which form plants. It will be enough for the purpose of this Essay, to present to your eye, reader, a table, showing the proportions of water, mould, and salts, which the dung of yourself and your stock presents.

	Water.	Mould.	Salts.
Night soil and Hog manure,	75.30	23.50	1.20
Horse dung,	71.20	27.00	.96
Sheep dung,	67.28	22.50	3.06

(*To be Continued.*)

Food for Cattle.

At this time, when the correct principles of farming and feeding, as ascertained by chemical analysis, are a subject of general inquiry, I have thought the following article on "Food for Cattle," would be interesting to the readers of the Cabinet. It appears that a far greater value has been attached to some esculents containing a very

large proportion of water, such as turnips, beets, carrots, potatoes, &c., than they deserve; whilst others, in which the proportions of organic matter are very great, such as peas, beans, oats, barley, wheat bran, &c., have been too much neglected. It is quite contrary to the received opinion, that 100 lbs. of the skin of wheat,—brand—is as valuable for cattle food, as 100 lbs. of almost any article that can be given to them. But this may account for the observation that we have often made, that "miller's horses and hogs were always fat," as they are generally fed liberally on wheat-offal. J. L.

Milverton, First month 12th, 1844. *Cabinet.*

Extracted from Dr Playfair's Lecture, delivered to the members of the Royal Agricultural Society, in December last.

The food for cattle is of two kinds, azotized and unazotized, with or without nitrogen. The following table gives the analysis of various kinds of food of cattle in their fresh state:

		Water.	Organic matters.	Ashes.
100 lbs.	Peas,	16	80½	3¾
'	Beans,	14	82½	3½
'	Lentiles,	16	81	3
'	Oats,	18	79	3
'	Oat-meal,	9	89	2
'	Barley-meal,	15½	82½	2
'	Hay,	16	76½	7
'	Wheat-straw,	18	70	3
'	Turnips,	89	10	1
'	Swedes,	85	14	1
'	Mangold wur.	89	10	1
'	White carrot,	87	12	1
'	Potatoes,	72	27	1
'	Red beet,	89	10	1
'	Linseed-cake,	17	75½	7½
'	Bran,	14½	80½	5

A glance at this table would enable a person to estimate the value of the articles as diet. Thus every 100 tons of turnips contained 90 tons of water. But the value of inorganic and organic matters which these foods contain, differed. Thus Mr. Rham states, that 100 lbs. of hay were equal to 339 lbs. of mangold-wurtzel. It would be seen that that quantity of hay contained 76 lbs. of organic matter, whilst the mangold-wurtzel contained only 34 lbs.

One result on feeding animals on foods containing much water is, that the water abstracts from the animal a large quantity of heat, for the purpose of bringing it up to the temperature of the body, and in this way a loss of material took place. The mode proposed by Sir Humphey Davy, of ascertaining the nutritive properties of plants, by mechanically separating the gluten, is unsusceptible of accuracy. The more accurate way is, to ascertain the quantity of nitrogen, which being multiplied by 6.2, will give the quantity of albumen contained in any given specimen of food.

The following table shows the equivalent value of several kinds of food, with reference to the formation of muscle and fat, the albumen indicating the muscle forming principle:

		Albumen.	Unazotized matter.
100 lbs.	Flesh,	25	0
'	Blood,	20	0
'	Peas,	22	51½
'	Beans,	31	52
'	Lentiles,	33	42
'	Potatoes,	2	24½
'	Oats,	10½	68
'	Barley-meal,	14	68
'	Hay,	8	68½
'	Turnips,	1	9
'	Carrots,	2	10
'	Red beet,	1½	8½

The analysis in this table, are partly the result of Dr. Playfair's, and Boussingault's analysis. The albumen series indicates the flesh-forming principles, and the unazotized series indicates the fat-forming principles. By comparing this table with the former, it will be at once seen which food contain not only the greatest quantity of organic matter, but what proportion of the organic matter, is nutritive, and which is fattening, or that which furnishes combustible material. In cold weather, those foods should be given which contain the larger proportion of unazotized matters, in order to sustain the heat of the body. Thus it will be seen, that potatoes are good for fattening, but bad for fleshening matter, and but little nutritive matter; hence barley-meal, which contains a good deal of albumen, may be advantageously mixed with it.

Dumas, a French chemist, states that the principles of fat exist in vegetables, as in hay and maize; and that, like albumen, it is deposited in the tissues unchanged. But Leibig regards fat as transformed sugar, starch, gum, &c. which has undergone a change in the process of digestion. This is why linseed cake is fattening; all the oil is squeezed out of the seed, but the seed-coat—which contains a great deal of gum and the starch of the seed—is left, and these are fattening principles.

The oxygen, introduced by respiration into the lungs, is destined for the destruction of carbonaceous matter; but there is a provision made for taking it into the stomach with the food, and this is done by the salva. The salva is always full of bubbles, which are air bubbles, and carry the oxygen of the atmosphere into the stomach with the food. The object of rumination in animals, is the more perfect mixing of the food with the oxygen of the air. This is why chaff should not be cut so fine for ruminating animals, as the shorter the chaff is, the less it is ruminated, and the less oxygen it gets.—*Mark Lane Express.*

Fine Wooled Sheep.

Rambouillet Merinoes.—Agricultural products of all kinds being so very low throughout the Union, it has become quite a desideratum on the part of the farmer, to know to what objects he can turn his attention, with the best prospect of realizing the surest and greatest profit from his land. We have thought, notwithstanding its unprecedented low price, that the raising of a superior quality of fine wool, especially on the hilly lands of the south and west, was now, and would continue to be one of the safest and most lucrative branches of husbandry. We have accordingly so expressed ourselves from time to time in pages of the Agriculturist, and we hope that our readers will not be impatient, if we continue to advert occasionally to this very important subject.

By the census of 1840, we see that there were, in round numbers, twenty millions of sheep in the U. States. On account of the prevailing low price of wool and mutton for the past three years, it is generally supposed that there has been no increase among the flocks of the country, and that they are now about the same number as in 1840. As in this number, lambs as well as grown sheep are included, it will be fair to suppose that but little over one half, or say eleven millions, are shorn. The average product of fleece in these, we think we may be safe in estimating at 2¼ lbs., which would make 24,750,000 lbs. of wool per annum. The average value of this is probably 12 cents per pound, which would amount to $5,196,500. Now by adopting the best breed of fine wooled sheep, we should not only enhance the value of the wool nine cents per pound, but also add to the product of each animal at least one pound more per head than the average stated above, and all this may be done, without increasing the amount of food at present consumed by the unimproved flocks. We should thus gain by a superior quality of wool, $2,227,500; by increasing its quantity, $3,300,000, making an annual gain of $5,527,000, which is more than the value accorded to our estimate of the present production of the country. And this enormous sum is but one among the many benefits proposed to the farmers by adopting an improved stock, and an improved system of husbandry.

Where a mild climate prevails, there is no doubt but that the increase of a flock after all the fixtures are prepared for its accommodation, will pay the expenses of keep and attention, and that the wool shorn from it will be clear gain. Sheep are also the best renovators of the soil; that is, by pasturing them on poor or worn-out lands, they will restore them to fertility sooner than any other kind of stock; it therefore behooves the farmer and planter to consider with these double objects before them, viz., the profits of agriculture, and the improvement of the soil, whether they can do better, as one branch of their business, than to keep 100 to 1,000 sheep, according to the situation and extent of their landed property.

Mutton being but a secondary, and wool the paramount object with the American farmer, the best animal to start with, or make improvements on those already on land, are undoubtedly the Spanish Merino. And here we have to lament the great deterioration in blood and breeding, of those hardy and inestimably valuable flocks which were imported direct from Spain by Col. Humphrey and others, from the years 1808 to 1811.—These had scarcely overcome prejudice, and got well planted among us, than our countrymen, true to their character, and despising pedigree and distinct breeds, and neither knowing nor caring for their value, and seized with the conceit that they could *improve* them by *crossing*, not only foolishly commenced mixing up these importations by coupling them together in all sorts of ways, thus making, to use a Spanish expression, a complete *olla podrida* (hodge podge mess) of the breeds; but in addition to this, they must needs add, by way of still farther and *scientific improvemet*, crosses of the miserable culls and off-scourings of the open-fleeced Saxon flocks, imported by a band of mere mercantile speculators, in such numbers from the year 1824 and on.—But thanks to the good constitution, strength, and fixed thorough breeding of the original Spanish Merinos, let the *improvers* do their worst they could not wholly destroy them; and there are still large and valuable flocks scattered over the country, from which good ewes may be selected at a small cost, with which those disposed to go judiciously into the rearing of fine wool, may commence with the certainty of starting as near right as circumstances and a prudent and economical outlay of capital will permit; and then with the use of pure bred, unadulterated Merino bucks, they can go on in the broad road of improvement, and be annually increasing the value of their flocks, raising the standard of *quantity* as well as *quality* of the wool produced, and thus adding greatly to the incomes of the sheep husbandmen.

Among those pure bred flocks from which bucks may be chosen, with a view of effecting this important purpose, that undoubtedly superior to all others within our knowledge, in the United States, is possessed by Mr. D. C. Collins of Hartford, Connecticut. Travelling in Europe in the year 1839, and having his eye occasionally upon its agriculture and improved stocks, among other things, this gentleman was struck with the marked superiority of the Spanish Merinos, composing the celebrated royal flock kept, at Rambouillet, in France, about 40 miles from Paris. He accordingly determined to procure a few for the purpose of *establishing a pure bred Merino flock* of the right sort, on which the utmost reliance could be safely placed by those who want undoubted purity of blood, and which should always hereafter be a source of supply of pure bred bucks for the growers of fine wool, in restoring and perpetuating the fine woolled flocks of our country.—The following year he obtained two bucks and twenty ewes, from the best of the Rambouillet flock, and brought them over to this country. These he has continued to breed here with great success, and has now a fine flock of their produce, fully equal to the original, and it is believed to be the only importation which has been made of *pure Merino* blood into this country for more than thirty years past, and is now the only blood in the country, within our knowledge, which can be relied upon as being *strictly pure.*

On p. 171, Vol. I. of the American Agriculturist, we gave a short notice of these animals; but the subject of the production of fine wool in our country seems at present to be so important, that we have thought we could not do our readers a greater service than bringing the matter up again for their serious consideration. Understanding therefore, that Mr. Collins intended shearing his flock on the 15th of June, we started for Hartford, and arrived there on the morning of the day previous for the purpose of inspecting them in full fleece, and then in their naked forms, as also some flocks alongside of them, of what may now be termed the native Marino. Altogether we spent three days in our examination, taking samples of the wool, weighing the animals and their fleeces, and studying their forms, from the lambs just dropped, up to the full grown sheep of a mature age. The result of our observation, and the information we obtained, with respect to the Spanish Marinoes from the Royal flock of Rambouillet, and the produce bred from them in this country, is:

1. They possess as good constitutions and are as thrifty and hardy as any native or imported sheep whatever.

2. They attain a great age, have been known to reach twenty years, and may be depended upon as good breeders and wool producers, till twelve or fourteen years old.

3. They have large loose skins, full of folds, especially around the neck and below it, on the shoulders, and not unfrequently over the whole body; the wool thickly covering its surface, the forehead, cheeks, and the legs clean down to the hoofs, giving the fleece, when shorn

and spread out in its ample dimensions, the appearance of having been taken from the carcass of a huge buffalo, rather than so small an animal as the domestic sheep.

4. The fibre of the wool is very fine, quite equal to the best Merino in Spain, and is very antipodes of that of which so much complaint is made by the manufacturer, of being harsh, dry, crispy, and wiry. The fleece opens of a brilliant creamy color within, on a skin of rich pink, and is soft, glossy, wavy, and very even over the whole body; is exceedingly close and compact, and has a yolk free from gum, and easily liberated when it comes to be washed, but which protects the wool from the weather, and keeps it free from the dead ends that are so objectionable, and that make so great a loss in the more open fleeces of the Saxons and their crosses. It becomes of the purest white when scoured by the manufacturer, and still retains its mellow, oily touch, so grateful to the handling of good judges. Its felting properties are beyond dispute, making it a choice material for the manufacture of fine broadcloths and cassimeres, and especially fine hat bodies.

We are tolerably familiar with the Marinos imported direct from Spain, and their subsequent breeding in the United States, and we find the distinguished superiority of the Rambouillets over them, is in the size of their skins, enabling them to cut a greater proportion of wool. In their form they resemble the Paular Merinos, more than any other tribe of Spanish sheep that have fallen under our observation. They are also from one tenth to one fifth larger in carcass; are equally thrifty, hardy, and long-lived; give more wool for their size, and of a better quality; and upon the whole, present a grander and more noble appearance. It is not contended that the Merinos of any tribe have the finished, full, round forms of the English mutton sheep. They have been bred for other purposes.—Their flesh is reasonably good when made wethers, and killed at a suitable age, and their forms are susceptible of improvement, for in this particular we occasionally see them nearly equal to a South Down or Leicester. We have given the portrait of a buck of Mr. Collins' importation. To our eye he is strikingly majestic, and as a *wool sheep*, we do not see how he could be altered for the better.

Grandee's fleece was suffered to grow from 1839 to 1841, two years, and weighed on shearing 26 pounds 3 ounces, clean, unwashed wool. One year's fleece in 1842 weighed 12¾ pounds. At three years old in France he sheared 14 pounds. Standing as sketched in the position above, he measures in a direct line along the body, from the setting on of the horns to the end of the rump, 3 feet 8½ inches; height over the rump and shoulders, 2 feet 5 inches; his weight in good fair condition is about 150 pounds. The ewes are proportionably large, are great milkers, and the best of nurses. Both sexes are quiet in pasture, and of a gentle, docile disposition.

The average of Mr. Collins' flock of ewes in this year's shearing, we found to be 6 pounds 9 ounces. Allow one fourth loss for clean washing, and it would leave the average for the ewes at 4 lbs. 15 ounces. The average of the native Merino fleeces clean washed is not over 3¼ lbs., and that of the Saxony does not exceed 2¼ pounds.—*American Agricul.*

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*For a complete exposure of these importations, see Mr. Graves' admirable articles, Vol. 1., p., 313 of the N. Y. State Society Trans. for 1841. And for a capital communication on the subject of Merinos. see Examiner, p. 52 of vol. 2nd of the American Agriculturist.

From the London Gardeners' Chronicle.

EXPERIMENTS WITH DIFFERENT MANURES ON THE POTATO CROP.

The following experiments on the application of various manures to the potato crop, were tried last season, and as the mode of culture adopted differs from the usual practice, a few words of explanation on that subject are necessary. The land was of very superior quality, consisting of a moderately tenacious clay, through which a considerable portion of an impure carbonate of lime is interspersed. It had been previously many years in grass. The potatoes were planted on the 15th of April. The ridges were five feet wide, five sets being planted across the ridges, being thus nearly a foot distant across, and nearly eighteen inches in the other direction. These were covered about three inches deep with the earth out of the furrows. Before the young shoots had reached the surface through their covering, the various manures were spread on the surface, in the proportions stated below. An additional covering of earth, two inches deep, was then put over the ridges. The application of the manures and the covering of earth took place the same day, on the 20th of May. On the 15th of June, the spaces between the rows across the ridges, were loosened by the hoe and drawn up to the stems of the plants, forming, in fact, drills as it were, across the ridges. The potatoes were taken up on the 10th of October, and the following table exhibits the results:—

Kind of Manure.	*Quantity per acre.*	*Product pr. ac.* Tons.	Cwt.
Guano,	3 cwt.	19	11
Bone dust,	18 bush.	15	13
Nitrate of soda,	2 cwt.	16	19
Nitrate of potash,	2 cwt.	15	5
Muriate of ammonia,	2 cwt.	17	15
Salt and quick-lime, in equal quantities,	8 cwt.	14	17
Farm-yard manure,	10 tons,	16	3
No manure applied		13	10

The farm-yard manure was that of the preceding season, which had remained over in the yard, and was well decomposed. Each of the other manures was mixed with a small portion of dried earth a few days before being applied. The common salt was obtained from a provision store, and contained a considerable portion of animal matter, as blood and pieces of fat, though its effects in combination with the lime, were not very great. The whole of the manures applied were successful, in so far as having considerably overpaid the original outlay. Another circumstance I may here mention as worthy of observation:—The produce of two equal portions of the crop to which no manure had been applied, the earth in one case having been hoed between the plants and drawn up to their stems, and the other not, showed clearly the advantage of the former treatment, the difference in produce being no less than one ton and three quarters per acre.

W. SMYTH.

The last Annual Report of the Hon. H. L. Ellsworth, Commissioner of Patents, recommends a variety of neglected agricultural products to the attention of farmers. The first of these productions mentioned is the *symphytum officinale*, or prickly comfrey. "If all that has been written of this plant be true," remarks Mr. E., "it would seem to deserve attention as likely to prove a valuable acquisition to our farmers." Cattle of every kind are said to be fond of it; an acre of it, with proper care, may be made to produce thirty tons of green foliage in one year. The growth is so rapid as to afford two cuttings in one year. The root, it is stated, shhold be harvested but once in two years, and will yield 2,400 bushels per acre. The root is greedily devoured by cattle.

The Jerusalem Artichoke is also recommended as food for cattle. It is very much prized in Europe, where it sometimes yields more than 2000 bushels of roots per acre. The leaves and stalks cut up when green, with other fodder, are much relished by the cattle, and form a very nutritive food for milch dows.

The Corn Spurry is recommended as a suitable covering for poor sandy soils. It is very easily cultivated, and produces an abundance of pasture. It grows in England, in sandy fields, eight or ten inches high.

A plant called the Bokhara Clover received an extended notice in the Report. Mr. Taylor, who presented it to the Royal Agricultural Society of England, stated that though planted by him in the Spring, it grew luxuriantly up to the latter part of September, when it was four feet high; and the stalks were matured into strong and durable hemp. It stands the winter well, flowers in June, and is covered about the middle of July with a fragrant white blossom. It should be harvested in the latter part of September.—It is a valuable green food for cattle, and if cut when fifteen or twenty inches high would furnish a food superior to the common herbage plant.

Lucerne, Sanfoin, Millet and Vetches have never been tested as they should be in the United States. The Tussac grass, an indigenous product, large and sedgy; the Guano grass, a native of the prairies of the Choctaw country; and the Arundo grass, are declared to be of inestimable worth.

Special notice is taken of a gigantic species of cabbage from France, called the Anjou Cabbage. In Anjou they grow 7 and 8, and sometimes even 9 feet high. From June, when they begin to ripen, their leaves may from time to time be gathered, and then they shoot out again. Cattle are exceedingly fond of them, and they greatly increase the milk of cows.

Madder, it is stated, will pay a net profit of $200 to the acre, when properly managed. A farmer in Ohio has grown on an acre 2000 pounds, and he believes that the product may be extended to 3000 pounds, which is much greater than the average crops of Germany and Holland. To work an acre from 80 to 100 days are required; and a crop is not repeated until it is three years old.

The Palmetto root, abounding in the South, is said to contain a large quantity of the tannin principle. By a new process of steam the tannin principle is now exracted from bark and reduced to a small compass.—It may therefore be easily exported.

Olives are easily cultivated in the Southern States.—A gentleman in Mississippi has a tree in his garden, which, at 5 years old produced fruit, and was as large as trees in Europe usually are at 8. The tree in this country yields a fair crop at four years old for oil, and at eight as much as it usually does in Europe at twenty. The tree is of great longevity, living to be 100 to 12 hundred years old, and it may be grown with profit as far north as the Carolinas.

A new variety of Tobacco, lately introduced into Virginia from California, has several advantages over the common varieties. The plants are sooner ready for transplanting, and they mature more rapidly by ten or fifteen days than the varieties in vogue. The leaf is broad and silken, and is, when cured, of a beautiful color.

Cutting Bushes.—The following good remarks on this subject we take from a paper published many years ago:

There are two seasons of the year peculiarly suitable for cutting bushes, early in the spring and late in the summer.—In the spring, March, on all accounts, is the best time. The snow is generally gone and the ground is so frozen they can be cut close. It is a season when labor is plenty—when the farmer has more leisure than any other—generally too early to plough.—Days then have length and the weather, generally, is not too cold for labor abroad. Perhaps, aside from these considerations, April would be preferable, as the sap has then more copiously risen. Still in that point of view there is no great difference. In March, the sap is in circulation; it has risen and is rising. The bush being cut, what sap has not already risen will principally exude from the stump before the wound is seared, so that in the event the root will be nearly as much exhausted which is the great object, as though the brush had been cut when the sap was in a more copious circulation. Still, suckers will spring from the remaining sap of the root.—These must be closely cut in August following, whether in any particular stage of the moon I do not pretend to say. I only say that August, the last of the month, is the time; because on rational principles of vegetation, the suckers have then a greater quantity of sap, have drawn larger from the parent stock, and have more of its strength than at any other season: at any rate before there will be more sap up there will be less—it will soon begin to recede, and of course supply the root with substance for new shoots. Besides, the season is almost in a measure favorable to farmers on account of labor. They have now some leisure; haying and harvesting are past and the latter seed time has not commenced, although ploughing preparatory to it ought now by no means to be neglected.

Another reason why I recommend the commencement of cutting bushes in the spring is, that if the land be pastured, which is generally the case, many of the young shoots will be eaten down and effectually destroyed. This will, in a measure, supersede the labor of August.

Where it is practicable, it would be well immediately upon a heavy dew or gentle rain, at the season when these young shoots are in their tenderest state, to sprinkle them with fine salt.—The salt will be beneficial to the stock and induce them to crop the tender sprouts.—*Mass. Ploughman.*

Harvest.—The wheat crop of our county, which by the way, is finer than it has been for many years, has ripened so rapidly, in consequence of favorable weather, that, we understand, many of our farmers intend commencing their harvest during the present week. They are now busily engaged in mowing their hay, which we believe is equally fine. The accounts from all parts of the country are quite as flattering as our own; so that we may be said to have every prospect of a most abundant year, although we dare not expect very high prices for our crops.—*Hagerstown Torch Light.*

THE AMERICAN FARMER.

PUBLISHED BY SAMUEL SANDS.

PRESENT OF SEED CORN.—We have received from that old and well tried friend of Agriculture, the Hon. *John S. Skinner*, of Washington, two small parcels of Seed Corn. The one is called "*The Ne Plus Ultra Corn*," said to have 26 rows upon an ear, and 61 grains in each row.

The other is called "*Gourd Seed Corn*," which is represented to yield an ear with 36 rows, each of which containing 52 grains.

This is all the advice we have respecting these two varieties of corn; but coming as they do from the veteran pioneer of agricultural improvement in America, we doubt not that they are each worthy of an experiment, as we are well assured if he did not feel perfectly certain of their superiority, he would not take the pains to give them circulation; for although ever distinguished by a zeal highly seasoned with enthusiasm, that zeal and that enthusiasm were equally characterized by a judgment too astute and discriminating to be led astray by the Will o'whisps and humbugs of the day.

Those who may wish to secure a few grains of each kind, can do so, by making early application at this office.

While upon the subject of corn, it may be well to remark, that the *first* ear of corn is yet to be found having *naturally* an *odd* number of rows upon it.

INTERESTING STATISTICAL FACTS.

In the appendix to Judge Collamer's speech, which we published a week or two since, there are some very interesting statistical tables.

The *first* is a table compiled from the Census returns of 1840, showing the population of each state, the number of sheep in each state, as also the pounds of wool, bushels of wheat, bushels of rye and bushels of corn gown in each State. As we cannot afford to copy these tables in extenso, we will give the aggregates of the several Agricultural products in all the States, believing that they will be serviceable as matter of reference to show the vast agricultural productive resources of our county.

Sheep.—According to the table alluded to above, there were in the United States in 1840, 19,311,374 Sheep, and we think it but fair to presume, from the more favorable condition of the country since, the improvement in the value and demand for wool, and prospect of a continued and permanent home market, that at least 25 per cent. have been added to the number of sheep since 1840. If we concede the increase, at the per centum named, to be a fair one, and we think it is, the present number in the United States may be presumed to be above twenty four millions, and great as this number may appear to the superficial reasoner and thinker, it is greatly below what the demand would require for the home consumption of the country. In 1840, the population of our country exceeded seventeen millions of persons, and it is reasonable to suppose that they number twenty millions now, so that, allowing the increase of sheep to be as great as we have named, it would give but 1 1-5th sheep to each inhabitant to supply all the fabrics worn and used in families made from wool. We state these facts and conclusions, because we desire to impress upon the minds of the Agricultural community that sheep raising and wool growing, open ample fields for enterpise, as in our view the demand both present and prospective, is, and in all probability will be, far beyond the sources of domestic supply for several years to come. We arrive at this opinion from the experience of the past, as, except in a few Eastern, Northern and Western States, the raising of sheep for wool, with the great body of farmers, has never been pursued as a business; but simply as a collateral branch, (and as a very inconsiderable one too) of husbandry, one that looked no farther than the growth of lamb and mutton for personal consumption or for the butcher. Indeed, although there are exceptions to be found in the districts of country to which we have alluded, where wool growing upon a large scale has been pursued as a regular business, still even there these exceptions have been "few and far between," and were subject to those most disastrous spasmodic revulsions which are ever attendant upon the vascillating policy of a government in the adjustment of its duties on imports.

Wool.—This table shews that, in 1840, there were grown in the United States 35,802,114 pounds of wool. This was a little better than 2lbs. for each individual comprising our then population, if the returns of the Census are to be relied upon—a quantity of which, at the very first glance, all well balanced minds will conclude to be greatly insufficient to supply the wants of our people, and especially in a climate like ours, which, through a vast portion of our mighty territorial limits, calls for woollen garments fully nine months in the year.

But insufficient as the supply of wool is—inadequate as it may be, let us look at its money-value, taking the quantity grown in 1840, as the basis of our calculation, and that is greatly below the present product. There were grown in the United States in 1840, thirty five millions, eight hundred and two thousand, one hundred and fourteen pounds of wool. This, at what we consider a low average present price, would be worth ten millions, seven hundred and forty thousand, six hudred and thirty four dollars and twenty cents, a very important item in the productive resources of the country; but this fact derives additional importance from the circumstance, that the quantity of wool grown is susceptible of being duplicated without any danger of glutting the market, or exceeding the demand. Nor is it a less gratifying fact that this enhanced product might be reached without any extraordinary effort of agricultural skill, outlay of means, or unnatural diversion of present pursuits; all that is wanting to effectuate the desired purpose, being attention to the improvement of the breeds, and a gradual extension of the number of sheep and the facilities for their accommodation through the inclement periods of the year.

There were facts developed by Judge *Collamer*, in the course of his very sensible speech, which are worthy of repetition, as they go far to illustrate the healthful influence, to the well being of the agricultural community, exerted by the State of Vermont, in the extensive and profitable market which she affords to the grain growing portions of our country. By reference to the Census tables of 1840, it will be seen, that though *Vermont* grew 3,699,235 lbs of Wool, yet she raised only 495,800 bushels of wheat, being less than 2 bushels to each inhabitant, a quantity much below the consumption of the people of the state, as is proven by the fact that she annually purchases from the other States of the Union, 150,000 barrels of flour; thus affording a market of at least $750,000 in value for this important staple of our country, and that too, with a population of only 291,948 persons.

Wheat.—The product of wheat in 1840, was 84.823,272 bushels, a little less than 5 bushels a head for each member of our then population, of 17,063,354 souls. The quantity of wheat grown in that year, if we estimate each bushel to be worth 75 cents, would give us as the money-value of the crop, $63,617,454. We make this calculation, in connection with the subject, with a view of shewing the immense productive resources of our country, and how vastly essential agriculture is to its welfare, whether individual comfort or national wealth be considered.

Rye.—Of this grain, there were produced eighteen millions, six hundred and forty five thousand, five hundred and sixty seven bushels, a little over a bushel a head.

Corn.—This crop of crops, o'ertops all others by many fathoms—for the returns of 1840 shew a product of 377,631,875 bushels.

The next table is compiled from a British author, *Bishcoff*, who, in his history of woollens, shows that in the years 1815, 1820, 1825, 1830, 1835 and 1840, there were imported into England 183,255,434 lbs of wool, a quantity so large as to verify to the letter the deep importance of the sheep culture to the wealth of nations and the comfort of those who comprise them.

The next and last table we shall give entire, because it is evincive to us, from its face, that the sheep culture and the growth of wool in America, is onward, a consummation, in our humble opinion, most devoutly to be wished. We give the table and leave our readers to draw their own conclusions from the facts disclosed.

Wool unmanufactured imported into the U. S.

Year ending Sept. 30.	Not exceeding 8 cts. per lb.		Costing over 8cts. per lb.	
	Pounds.	Value.	Pounds.	Value.
1840	9,308,992	$675,009	594,748	171,067
1841	14,409,764	981,281	596,646	173,672
1842	10,637,751	685,649	685,649	111,733
1843	4,773,083	402,795	210,570	66,387

Coarse wool, under 7 cents per pound, imported in 1843, 4,773,083 lbs., value $402,795.

Large Sale of Wool—The Claremont Chronicle of a late date notices the sale of 30,000 lbs. of wool in that town in a single day, which brought 45 cents per pound. The prospect of a permanent market and such a price, we think, should stimulate our farmers to *increase* their flocks—and while they may be looking to this point they should also pay particular regard to their *improvement*.

Sugar Beets—We insert the subjoined by way of a hint, because we know from experience that it is not too late to sow beets with a certainty in good ground to realize a good crop:

Mode of Culture—The ground was thoroughly plowed, harrowed and furrowed, on the 13th of June; the furrows were filled with stable manure and oyster-shell lime, which was covered with the plow. Drills were then made by hand, and filled with a composition, composed of ashes, salt, muck, poudrette, lime and charcoal dust, in nearly equal quantities, except salt, a small portion of which was used. The seeds were soaked 12 hours in a strong lye, sown on the composition and covered on the 11th of July. The plants were thinned to 12 inches and hoed, after which they were plowed once, gathered and measured on the 30th October. Yield, 190 bushels from one-fourth of an acre.

Nutritive properties of Flour—A correspondent of the N. Y. Central Farmer gives the following statement of the nutrive qualities of the *flour* of various countries:

I have noticed lately from experiments which have been made in France, that seem to be important; at all events, they are interesting, and I think useful. The nutritive quality of flour has been ascertained by a French chemist, from a variety of samples which he has analysed, and the following is the result:

Nuremburgh bread is equivalent to	100.00
Dresden	115.31
Berlin	116.04
Canada flour	117.23
Essex	121.33
Glasgow unfermented bread	123.15
Sothian flour	134.06
United States flour	145.03
U. S. flour by chemical analysis,	150.00

By this it will be seen that the U. S. flour is far the most nourishing of any in the world.

Cure for Hoven.—Take ¼ lb. of lard, 1 pint of milk, boil both down to a pint, mixing them well together—Give half of this immediately at blood heat, and the remainder soon after.—*Central N. Y. Farmer.*

We have no doubt of the efficacy of the above cure; we cured a very bad case of hoven in a young Durham heifer, 2½ years old, by a very similar treatment. Our dose consisted of a pint of *fish oil*, a pint of molasses, 2 ounces of ginger, the whole mixed in a quart of hot water. We divided and gave the mixture in two doses, the second

dose in an hour after the first, taking care to keep the animal moving until the medicine operated.—*Editor American Farmer.*

GUANO—One might suppose from the great stir that has been made about it lately, both in England and the United States, that the virtue of *Guano* as a manure, was a *recent discovery*—whereas, by turning to the 6th vol. of the old American Farmer, it will be seen that as far back as 1825, it was introduced into this state by Midshipman Bland, who furnished Mr. SKINNER, the then editor,* with enough for all the purposes of experiment, and by him given, as we understand, to the late Mr. ROBERT SMITH, then President of the Maryland Agricultural Society, and to Gov. LLOYD, who tried it, with decided effect, on corn and other things at his Wye estate.

The following interesting letter from Maj. Capron, of Prince George's, has been politely forwarded to us for publication, by Mr. Skinner, to whom it was addressed:

LAUREL FACTORY, May 29, 1844.

Dear Sir: Your very acceptable letter, enclosing packages of the new white Giant Celery, and imported hybrid Ruta Baga seeds, reached me by this morning's mail—for which you will please receive my sincere thanks, not only for the seed, but the compliment—I will endeavor to render a good account of them.

Your inquiries with regard to the proper method of applying the Guano, and its effects upon vegetation, I am sorry my limited experience in the use of that manure will not allow of my answering satisfactorily. My first trial of the Guano was this spring, and the result so far as it has shown itself up to this time, I take pleasure in communicating to you.

On the 6th April some naked spots appearing in (what otherwise was) a fine field of (wheat, I determined to attempt a remedy—and as I could not apply stable manure, I procured a quantity of the *guano*, and applied it broadcast over these spots at the rate of 250 lbs. to the acre—There was no rain until the 24th and 27th, but very drying winds prevailing the most of the time, the season I thought unpropitious. On the 24th and 27th we had fine showers, and then a succession of dry windy days—On the 10th May, I find a note in my memorandum book to this effect. The bare spots in wheat field top dressed with Guano on the 6th April is now quite as *high* as the surrounding wheat, and much more vigorous in its appearance, being in color much darker, and stock larger—The effect upon the straw is evident, but its effects upon the grain is yet to be seen, which I will with pleasure communicate to you after harvest. Should it prove favorable, this manure is invaluable for this purpose alone, as we seldom in this climate find the ground sufficiently hard frozen, and every thing favorable for top dressing with stable manure, particularly after the effects of March are seen upon the crop.

I also have used about 800 lbs. of this Guano upon my oat ground, applied broadcast in all instances, and in strips alongside other kinds of manure, in order to test its efficacy. On the 9th April I ploughed up a small piece of *worn-out old fields*—sowed my oats and harrowed them in with guano at the rate of about 250 pounds per acre—sowed cloverseed and rolled the whole in. On an adjoining field of same description of land, I harrowed in with the oats unslacked house ashes, at the rate of 150 bushels to the acre, sowing clover seed and rolling as in the other case. At this time (29th May) altho' the weather has been very unfavorable for its operation, the part on which the guano was put is very superior to the part where ashes were used. Again, on the 10th and 11th of April, on a piece of two acres of ground, (which was last year in buckwheat and had at that time 200 bushels of soap boilers ashes spread over it,) I spread over it 17 two-horse cart-loads of stable manure, then sowed two bushels plaster, and turned it under. At same time I ploughed up an adjoining two acres, which had been treated same way *last year*, (except about one quarter of an acre which the ashes did not reach) and sowed the whole down in oats, harrowing them well in—On this two acres *not* manured with stable manure, I spread broadcast 487 lbs. Guano, sowing over the whole with clover and timothy seed, and rolling all in together with a heavy roller. The buckwheat from the shattered grain of last year has sprung up as thick as if sown for a regular crop, and there seems to be quite a strife between the buckwheat and oats, which shall have the ascendancy, the buckwheat now in full blossom. I shall let them fight it out in their own way. However, the part manured with Guano is the best to-day, and the quarter of an acre *never manured before*, nearly as good as the rest. The effect upon the grain I will notice particularly and communicate to you.

Yours, very truly and respectfully,

H. CAPRON.

To John S. Skinner, Esq.

We have been politely favored by a gentleman of Baltimore county, with the loan of a pamphlet, published in Liverpool, Eng. containing a variety of information upon the subject of Guano, from which we extract the following items:

From the Report of the Liverpool Agricultural Society's Annual Meeting.

"R. Neilson, Esq. said he was induced to try guano for wheat. He had a piece of land of ten statute acres, which he worked up with guano. Out of the ten acres seven were entirely destroyed by the strength of the manure, and the other three were preserved by his not putting so much of the manure on. These had produced a very fine crop, some of which had been shown that day (29th Sept.), and that from a wheat that was not large in the head. He tried the guano with mangel wurzel, and found that four or five cwt. were as good as twenty tons of the farm yard manure. It was decidedly an advantageous manure for cheapness, if it were properly introduced into the soil. It ought to be harrowed in. With turnips it had the same effect. Wherever the seed was in contact with the guano, or put into the drill where the guano was sprinkled on it, the seed was destroyed. The heat of the manure was so powerful that it ought to be harrowed into the land, and remain some short time for the soil to absorb its virtues before the seed went in. He had made a mixture of charcoal, guano, and farm-yard manure, and he found that answered the best. He believed guano was a decidedly valuable introduction into this country, and of great benefit to the farmer, even if he was obliged to repeat it yearly. The expense was slight, and the convenience of putting it in was obvious. It had only to be more generally tried to be more generally used."—*British Farmer's Magazine.*

INSTRUCTIONS FOR USING GUANO.

Extracts from a Report to the French Minister of Agriculture, &c, showing the Results of Experiments made with *Guano*, on the Experimental Farm of Saint Pierre D'Irube, near Bayonne. We merely omit the experiments on crops raised in Britain, and somewhat abridge the relation of the experiment.

On natural meadow-land, irrigable.

Applied the guano at the rate of 1600 lbs. to the acre. Result (where there had never before been but two crops,) three crops of hay and after grass, and each at least twice the quantity of the crops from equal spaces were manured; one with wood-ashes; another with well-rotted dung; another with an old compost of soil and lime; and the fourth with fowl dung, and this latter at double the rate at which guano would have been applied. The result was, two crops only, and inferior by one-third to one-half to the crops from guano.

At the rate of 800 lbs. of guano to the acre two crops of hay were got, one-third greater than from dung and the other fertilizers named; and at the rate of 500 lbs. to the acre, the first crop was more abundant than the crops from the dung, &c.; but the second crop had no superiority.

With regard to quality of crops, the hay from the guano was the finest; and the cattle eat it with eagerness.

On Potatoes.

Applied the guano at the rate of 200 lbs. to the acre. Drills 22 inches, and the sets 13 to 15 inches apart. Applied the guano all round each set, in quantity as much as could be taken up with three fingers and the thumb. Produce good and sound.

On another part of the land, planted with a compost of earth and dung; and another part with dung only. Produce from each inferior to that from guano; but the produce from the compost was nearest.

On Vetches and Oats for Fodder.

Used the guano at the rate of 240 lbs. to the acre. The vetches and oats were sown first, broad-cast, and the guano in the same way afterwards. The ground was then harrowed. Vegetated quick and vigorously. On another piece, with dung, one-half more than usual, for the piece had been previously manured for another kind, the vegetation was beautiful, but not so quick as with guano.

On Winter Wheat.

Sowed the guano in April, on a part of the field where the plants were poor and yellow, and when the ear was beginning to shoot, at the rate of 200 lbs. the acre. In 14 days the color was as good as, and the height of the plants equal to, the plants on the healthy part of the field. On harvesting, the guanoed wheat was found finer both in straw and grain than the other wheat. A portion of the unhealthy wheat was left untouched with guano, and it remained poor. On a piece where the wheat was already fine, an application of guano made it half as fine again, both in grain and straw.

On Mangel Wurtzel.

Used the guano at the rate of 80 lbs. the acre. Dibbled the seed, and put in each hole as much guano as could be taken up with two fingers and thumb. Result good, and the same as with good dunging. In some places no plants came up, and the reporter attributes the failure to the accidental application of *too much guano.*

On Clover.

Fifteen days after the first crop was carried, the guano was spread on a piece of land, at the rate of 120 lbs. to the acre. The vegetation was superior to that on the unguanoed part of the field, without excepting a piece that was limed. Produce about one-third more than under the ordinary circumstances.

The author of the report remarks, that one hot day he was in the meadow in which the first experiments were tried, and saw a great dryness prevailed every where, but on the guanoed part, which was remarkable for its verdure and vigorous vegetation. He was struck with the circumstance, and thrust his hands into the grass, and found that it was as wet as if there had just been a plentiful rain. He also informs us, that, on the same land, part of a sack of guano had been accidentally spilled, but gathered up again as well as possible, and that the spot on which the guano fell was actually burnt up and the grass root apparently destroyed. He likewise informs us that he cut a tuft of rushes close to the ground, and spread on it a handful of guano, and that the result was, the destruction of the rushes.

The two latter facts, coupled with the surmise as to the failure of some of the mangel wurtzel seed, are worthy of attention, for if they can be relied on, guano has the additional advantage of being a destroyer of noxious vegetation. We may also here remark, that the editor of the *Ayr Observer* informs us, that guano is utterly destructive of the *grub.*

From a Prize Essay of the Wetherby Agricultural Association.

For all purposes for which bones or farm-yard manure are applied, guano must be successful. Many experiments have proved this. Gen. Beatson found—

35 bushels of guano per acre to yield	639	bush.	potatoes.		
35 loads of horse dung	"	"	636	"	"
35 " hog's dung	"	"	534	"	"
Soil simple,	"	"	446	"	"

200 lbs. of guano per acre, applied by Mr. Smith, of Gunton Park, gave fifty bushels and half a peck of wheat per acre; while 15 bushels of bone dust gave 36 bushels per acre. Mr. Lowe, of Shoreham, Kent, applied 2 cwt. per acre for turnips with success. Mr. Skirving, of Liverpool, used it upon Swedish turnips and Italian rye-grass: 2 to 3 cwt. per acre he found equal to 20 cubic yards of farm-yard manure. Our own experiments with it have been on Swedish and white turnips. For Swedish turnips it was applied at the rate of 2 cwt. per acre, with an equal quantity of earth. For white turnips, 2 cwt. per acre was used, mixed with 6 bushels of earth; and 1 cwt. per acre, mixed with 12 bushels of bones, upon another portion. The manure was drilled with the seed, and the consequence was, that a large portion of the seed was destroyed. In places where the seed had not mixed with the guano, the turnips came up well, and had a more luxuriant appearance than those manured with other substances."

This essay was written before the author could know what his crop would be; but he says—

"They (the guanoed turnips) have made such progress, that although half the ground is without plants, if the

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* *We shall republish the article from the Farmer in our next, giving as it does an analysis of the Guano, made for Mr. Skinner by Professor Ducatel.*

bulb corresponds with the tops, we much question whether the crop will not equal other portions in the same field where there is no deficiency of plants. The color of the plants is at this time darker than those manured with other matters."

With regard to the destruction of the seed, the author of the essay observes, "We believe, that had the tubes which take the seed separately and drop it upon the seam after the earth has slightly mingled with the manure, been affixed to the drill, the germination of the seed would not have been prevented." The author then advises, "that in no case for turnips should less than a ton of earth or ashes be mixed with each cwt. of guano. Upon grain," he continues, "it may be applied safely with less than half this mixture of earth; 1 or 1½ cwt. with 20 bushels of earth or ashes will be a fair application; and he thinks a little powdered charcoal mixed with it, would add to the permanency of guano."

When required for any description of crop to be raised from seed, great care should be taken to have the guano well mixed with the soil, by lightly plowing, and then harrowing it in, so as to have it regularly distributed *into* the land, before sowing, as it is ascertained that seed will not germinate when it comes into *direct* contact with guano. When wood-ashes, charcoal, powdered cinders, gypsum, or any other article can be easily procured to mix with the guano, it may be desirable to do so, in order to secure its more equal distribution; but we do not consider this indispensable, so long as the guano is well mixed up with the soil, as described.

When required for top-dressing grain or grass crops, apply it, if practicable, on a damp or wet day, for the sooner rain falls after the application of guano the better. Above all, do not apply it on a windy or boisterous day, or much will be lost.

It is impossible to state the exact quantity requisite for every crop, and upon every variety of soil; but we think the practical farmer will, from the different results and modes of use given, easily find out the necessities of his own lands in this respect, for much, as to quantity, must depend upon the state and condition of his farm, from previous cultivation.

After the application of guano in Peru the land is immediately irrigated.

Liquid Guano.—1 lb. of guano may be put in 8 gallons of water, and let stand 24 hours, when 8 gallons more water may be added; which, after 48 hours, will be a valuable liquid for putting on land, or for horticultural purposes of every kind.

Cost of Manures.				per acre.
Guano, at 13s. per cwt., 2 cwt. per statute acre,	£1	6	0
Farm-yard manure, 6s. per load, 20 loads do.	6	0	0
Poittevins, at 13s. per ¼ of 8 bush. 24 bu. do.	1	19	0
Bone-dust, at 23s. per ¼ do. do. do.	3	9	0
Nitrate of Soda, at 20s. per cwt., 3 cwt. p. stat. ac.	3	0	0

Potato Cultivation.—"Last spring Mr. Whitney broke up a piece of green sward, harrowed it thoroughly, carted upon it manure from the yard, at the rate of thirty-two loads to the acre, cross ploughed it, harrowed it again, and planted it in the usual manner in hills. At the proper season, after ploughing between the rows, the piece was well hoed, which operation in due season was repeated. In the fall he dug from this piece, at the rate of three hundred bushels to the acre, which for this year, on account of the rust, was considered a great yield.

"By the side of this piece, on precisely the same quality of soil, manure from the same yard was carted and spread, at the same rate of thirty-two loads to the acre; the sward was then carefully turned over, and the furrows were laid flat with the roller. Between every other furrow, where they came together, (that is, between the first and second, and between the third and fourth, and so on,) holes two feet apart, were made with a sharpened stick, about three inches deep, large enough to receive the seed. Into each hole one piece of potato was put, and the holes filled up with mellow soil, even with the general surface of the field. There was no further labor bestowed upon the crop till digging, when the quantity produced was a little over four hundred bushels to the acre.

"Both pieces were planted with the same variety of seed, mostly the common white, and also within the same week. The latter piece, however, came foward earlier, grew more luxuriantly, and soon completely covered the ground; and although never hoed, not a weed was to be seen in it. Before digging, the field had the appearance of having been well hoed, the potatoes having raised up the ground above them.—*Farm. Monthly Visitor.*

Give your Sheep Water.—We see in the Albany Cultivator of this month an account of a flock of sheep in Ulster county, New York, that was much reduced by eating rank red clover; nineteen out of one hundred ewes died in the course of ten days from the ninth of June. The clover was very rank and but little else was found in the pasture for the sheep to live on. The owner found, on turning his sheep out, that the head land beside the fences that had not been ploughed, was gnawed down close to the ground.

Sheep have been known to live a long time without water, and some farmers turn them into lots where none can be had. In June while the grass is full of sap they may not suffer much for want of water. A horse will drink but very little in that month when he is not worked, as you will find if you tether one out by rope or chain in your garden.

But a good supply of good water should be handy for all kinds of animals, not to be drinked in the streets "to be seen of men," but to moisten the food and to assis the gastric juices of the stomach.—*Mass. Ploughman.*

Brine for Lice and for sore Teats—Currant Bushes.

Mr. Editor,—Having noticed many allusions made and antidotes recommended of late in the Ploughman, (by the way, Webster has it Ploughman) for the cure of sore teats of cows, I beg leave through your columns to present to your readers my mode or way, as practiced and approved by my own humble self. At times through the summer season wash the bag and teats with brine in fly time as often as possible, and two or three times after calving, and the result is that there is no trouble of sore and hard teats, and the bag is kept clean and healthy.—My attention was first called to the fact by being informed that the Shakers of New Hampshire had long made a practice of it, and I give it to the public, divested of all quack recommendations of being costly. I have also found strong brine good in case of lice on cattle.

I had the care of a heifer last winter, which, when first brought home, was troubled with lice, and finding snuff had little or no effect, to appearances, and fearful they might spread, my inventive faculties were immediately put to the test to destroy them, but I was prevented from trying many experiments, by the following circumstance; being engaged in scalding pork brine, I had about two quarts of brine over a pot full left; the thought struck me to try its effect on lice, so adopting for my motto, "nothing like trying," I proceeded to give mossy face a salt water bath, washing her in it with a sponge, when what was my pleasure, in two or three days to see her clear of lice, and her skin looking as bright and healthy as the best fed and fattest of her race.—*Mass. Ploughman.*

Good Butter.—The season is now at hand for making butter, and I wish every farmer's wife and daughter would try to make a better article than was ever seen before. It is just as easy to make a nice, good article as to make a poor one; and it is certainly vastly more for the comfort of the consumer. Take pains—churn your cream before it gets bitter, and skim your milk before the cream gets any bad taste; work it well, but not too much; get the milk out and the salt in with as little delay as possible; use only the finest and purest salt, or the solar salt of our own springs that has been ground. A great deal of good butter is spoiled by the salt; and many a good butter-maker has been blamed when it was no fault of hers. When butter is put into firkins, it should be pounded in with a layer of salt on the lower head, and an inch of strong pure brine on top of the butter; and the firkins should be made of thoroughly seasoned wood.—White ash, oak, beech or hemlock—but it must be seasoned. A great loss is sustained every year, by putting butter in unseasoned packages. To make good butter, it wants care, cleanliness, and good salt; and plenty of salt at all times for the cows. Let us have good butter this year.—*New Genesee Farmer.*

To protect Vines from Bugs.—A subscriber communicated to us a few days ago, a fact relative to the destruction of such bugs and winged insects as are injurious to cucumber and melon vines, &c. He has practiced it for several years, and found it very effectual in protecting the plants from the destructive ravages of these insects. The method is as follows: Just at evening, he kindles a small fire, (or if the patch be large, several may be necessary,) that will blaze freely, in some convenient place, where it will not injure the plants. He then by crushing the plants, alarms the bugs so as to cause them to take wing, when they fly directly into the fire, and are destroyed.—*West. Farmer and Gard.*

Horticultural Memoranda—for June.

Fruit Department.—*Grape Vines* will now have set their fruit, and more air may be given, and syringing again resorted to, not, however, too frequently. Continue to lay in the new bearing wood carefully, and cut out all laterals beyond the first joint. Water all the roots with guano liquid, once a week.

Vines in the open air will soon open their flowers. Now is a good time to prune off any large branches, as all danger of bleeding is over. Thin out and tie up all wood wanted for next year. Grafting may yet be performed.

Strawberry Beds should be looked after. Keep them free from weeds, and as soon as the fruit is picked, cut off all superfluous runners, if not wanted to make new beds.

Grafted Trees should have all suckers rubbed off of the stock, as fsat as they appear.

Summer Pruning should be commenced this month, as recommended in Mr. Carmichael's article.

Flower Department.—*Dalias* should be all set out this month, commencing now, and continuing to plant till July, so as to have a successton of flowers. Those planted about the 20th will give the best *show* flowers, as the plants will not be exhausted in September. Stake and tie up as soon as planted.

Roses should now be turned out into the border. Cuttings may be put in now.

Tulips and Hyacinths should be taken up the latter part of the month, or as soon as the leaves die off.

Perenial Flower Seeds may be sown any time this month.

Chinese Primrose Seeds may be planted this month.

Ericas may yet be propagated from cuttings.

Camellias should be removed from the house to the open air, and placed in a half shady situation. Syringe often.

Asters, Balsams, &c. raised in pots or frames should now be planted out.

Fuchsias now beginning to bloom should be shifted into large pots.

Geraniums should be cut down the latter part of the month, and cuttings may be put in.

Carnations, in pots, or in the ground, should have their flower stems neatly tied up.

Hardy Roses should be layered, if duplicate plants are wanted.

Azaleas may now be propagated from cuttings; top such plants as have a tendency to grow tall without branching.

Cyclamens should either be turned out of the pots into a shady border, or kept in a cool place and sparingly watered.

Heliotropes may now be propagated from cuttings.

Callas should now be turned down on the sides of the pots, in a shady situation, where they may remain till September.

Amaryllis Belladonna, now having completed their growth, watering should be omitted till September.

Cinerarios may be separated the latter part of the month.—*Magazine of Horticulture.*

From the Massachusetts Ploughman.

Mr. Editor,—What a strange itching there is, once in a while, among our young men to live in the city! To *live* do I say? In fact it is no living at all, compared with the healthy freedom of a country life. Has a farmer a pair of boys in their teens, say from fifteen to twenty, just becoming of use in carrying on business, and in whose care and attention he has all confidence, ten to one, if some flippant twattler of the city does not come out on a convincing trip, and set them all agog for the town. In such a case of what avail is a parent's advice or authority? Go they must, and go they will, and go they do. So, the crow-bar is given up for the goose-quill, and the plough-handle for the yard-stick. The poor disappointed father, now, has to shift and turn, as he can, and manage his husbandry by hook or by crook; getting help, as

he can find it. But he moves heavily and sad over his fields, and often lets fall a tear, whenever he reflects, that his once fond anticipations of seeing his sons settled near him, and partaking with him the pleasures and profits of an agricultural life, are now never to be realized! After a month or two the boys come home on a visit; and how do they appear? Not by any means in the former habit, glowing in robust health, with sinewy arm, bone and muscle of two young Samsons, with step brisk and energetic; but sallow and nerveless,—victims of dandyism,—mere city goslings!

In the days of my youth, *old* people were the smokers; but now every younker has a cigar in his mouth; and cocking it up, about forty five degrees, as he stands, braced against some post or pillar, with folded arms, he puffs away, looking amazingly wise, and talks largely about business, the price of stocks, &c. as if, forsooth, he were a thing of some consequence in the world! O, gracious! Did you ever encounter one of these bits of fustian, when journeying in a stage, reader, with his goat's beard hanging from his chin, his pinch-back watch safe around his neck, and sporting his shepherd's crook? What a fogo he keeps up to the annoyance of the company! Save me from ever coming in contact with the like nuisance again! And yet, I wish I, in truth could say, that such a bit of furniture was never manufactured out of a farmer's boy.

My readers are aware, that occasionally, I give them my thoughts in measure. I hope apology will not be necessary, if I descant a little in the present case. Not long ago, I heard with much pleasure, from one of the Boston Euterpean Band, the well known song of, *Life on the Ocean Wave*, &c., and I thought it might by a sort of parody, be well metamorphosed into a pleasant farmer's song; and here it is; sing it if you please.

THE FARMER'S SONG.

A life on my native soil;—
A home in a farmer's cot,—
I'll never at labor recoil,
And ask for a happier lot.
The city has not a charm,
With its turmoil, and noise, and strife;
O, give me a snug little farm,
With a kind and notable wife.
A life on my native soil;—
A home in a farmer's cot;—
With my three cattle team will I toil,
And ask for no happier lot.
Gee up!—Gee up!—
Gee up, gee up, and gee O!

On my own native soil here I stand,
Midst blooming fields around;
While the air is pleasant and bland,
And the hills with cattle abound!
The river is flowing by;
The boatmen singing we hear;
And the laborers, how they ply,
While echo sends round their cheer!
A life on my native soil;—&c.

How cheerful is it to view
Whole vallies of waving grain,
And the husbandman's jovial crew,
With sickles prostrating the plain!
O, the song of my heart shall be,
While earth her sweet products shall yield,
The life of a farmer for me,
A home in the forest and field.
A life on my native soil;—&c.

Now, my kind reader, if you are a musical farmer, just run over the above, while your wife or daughter accompany you on the piano-forte, a la mode de Russell. But, if to this proposal you demur, as the lawyers say, then call in, and we will give it in our poor plough-jogger style. CUI.

We are much gratified to hear again from our friend *Cui, to whom* we feel under much obligation. His remarks on the follies of fops, and the disappointments of those who quit the plough for city life should be well considered by all who aspire to that *blissful* state—*A life without labor.*—[*Editor.*

BALTIMORE MARKET, June 17.

Beef, Balt. mess,	8½a	Butter, Glades, No. 1,	13a
Do. do. No.1,	6½a7	Do. do. 2,	7a11
Do. prime,	5a	Do. do. 3,	5a7
Pork, mess	9½	Do. Western 2,	6a
Do. No. 1	9½a9¾	Do. do. 3,	5a6
Do. prime	7½	Lard, Balt. kegs, 1,	6½a7
Do. cargo,	a	Do. do. 2,	none
Bacon, hams, Ba. lb	6½a7	Do Western, 1,	a6¾
Do. middlings, "	5a5½	Do. do. 2,	5a5½
Do. shoulders, "	4a4¼	Do. do. bls 1,	6a6½
Do. asst'd, West.	4¾	Cheese, casks,	6
Do hams,	6a7	Do. boxes,	5a8½
Do. middlings,	a5	Do. extra,	12a15
Do. shoulders,	4a		
COTTON—			
Virginia,	9a10	Tennessee, lb.	
Upland,	9	Alabama,	11a12
Louisiana,	11¾	Florida,	10a12
North Carolina,	10a11	Mississippi	
LUMBER—			
Georgia Flooring	12a15	Joists & Sc'ling, W.P.	7a10
S. Carolina do	10a12	Joists & Sc'ling, Y.P.	7a10
White Pine, pann'l	25a27	Shingles, W. P.	2a9
Common,	20a22	Shingles, ced'r,	3.00a9.00
Select Cullings,	14a16	Laths, sawed,	1.25a 1.75
Common do	8a10	Laths, split,	50a 1.00
MOLASSES—			
Havana, 1st qu. gl	30a31	New Orleans	31a
Porto Rico,	29½a30	Guadaloupe & Mart	26a28
English Island,		Sugar House,	28a36
SOAP—			
Baltimore white,	12a14	North'rn, br'n & yel.	3½a4½
brown & yell'w	4½a5½		
TOBACCO—			
Common	2 a 3½	Yellow,	8 a10
Brown and red,	4 a 5	Fine yellow,	12a14
Ground leaf,	6 a 7	Virginia,	4 a 9
Fine red	6½a 8	Rappahannock,	
wrappery, suitable for segars,	8a13	Kentucky,	3 a
Yellow and red,	7a10	St. Domingo,	13 a11
		Cuba,	15 a38
PLASTER PARIS—			
Cargo, pr ton cash	2.75a	Ground per bbl.	1.12a
SUGARS—			
Hav. wh. 100lbs	9a10.50	St. Croix, 100lbs	7.00a8.00
Do. brown	a7.50	Brazil, white,	a
Porto Rico,	6.80a7.25	Do. brown,	
New Orleans,	6½a6¾	Lump, lb. c.	
FLOUR—We quote			
Superfine How. st., from stores, bl.			$4.37a4.50
Do. City Mills,			4.50
Do. Susquehanna,			4 50a
Rye, first			3.12a
Corn Meal, kiln dried, per bbl.			2.62
Do. per hhd.			11.75
GRAIN—			
Wheat, white, p bu	1.05	Peas, black eye,	50a55
" best Pa red	93a96	Clover seed, store	$5.50a
" ord. to pri. Md	85a90	Timothy do	2.a2.50
Corn, white,	40a41	Flaxseed, rough st.	1.35
" yellow Md.	43a45	Chop'd Rye, 100 lbs.	1.25
Rye, Md.	59a	Ship Stuff, bus.	20a
Oats, Md.	27a29	Brown Stuff,	15a
Beans,	100	Shorts, bushel,	10a
FEATHERS—perlb.			29a
COFFEE—			
Havana,	7 a 8	Java, lb.	10 a12
P. Rico & Laguay.	6¾a 8	Rio,	6¾a7¾
St. Domingo,	5¾a 6	Triage,	3½a 4½
CANDLES—			
Mould, common,	9a10	Sperm,	32a33
Do. choice brands,	10½	Wax,	60a65
Dipped,	8a 9		

Cattle—287 head beef cattle offered on Monday, 139 of which taken by the city butchers, prices ranging at $1.50 to $2.50 per 100lbs. on the hoof, equal to 3a4.75 net. Of the balance that were offered 92 were driven north, and 57 left over.

Flour—Holders of How. st. fresh gro'd continues very dull, and no transactions worthy of note have taken place to-day. Holders of this kind ask 4.50 for good mixt brands, lots not so recent manufacture are offered at $4.37½. The receipt price is unsteady.

Some holders ask 4.50, while others hold above it for city mills.

Grain—Receipts for Md. wheats appear to be entirely suspended. A load of very good Pa. red sold for 96c.

Tobacco market continues animated, and prices are fully maintained—all descriptions of Md. go off readily, the better sorts being in greatest demand, & find quick sale at former prices. Ohio is also taken at former rates with some avidity. The inspections of the week are 672 hhds Md. 879 do Ohio, 34 do Ky. and 57 do Virg'a.

BALTIMORE CO. AGRICULTURAL SOCIETY.

At the annual meeting of the Society held at Govanstown, on the 20th day of October, 1843, the following resolution was adopted:

"*Resolved*, That such counties of Maryland as may form societies auxiliary to this, shall on the payment of fifty dollars to the Treasurer of this society, be admitted on equal terms as regards competition for premiums, if in the opinion of the Executive Committee, such an arrangement shall appear to be expedient."

The Executive Committee at a meeting held in Baltimore, Dec. 23d, 1843, having fully concurred in the above resolution, do cordially invite the farmers of the counties of the state to form auxiliary societies, and become competitors for premiums offered by this society. JOHN B. H. FULTON, Rec. Sec.

GRAIN CRADLES! GRAIN CRADLES!

We mean what we say when we assert that A. G. MOTT, corner of Ensor and Forest sts. Old Town, near the Bel-air market, is now making up, and has for sale, the very best and cheapest article of the kind in the Baltimore market, and no mistake. Try them, je 19

POUDRETTE

Of the very best quality for sale. Three barrels for $5, or ten barrels for $15—delivered free of cartage by the New York Poudrette Company, 23 Chambers street, New York. Orders by mail, with the cash, will be promptly attended to, and with the same care as though the purchaser was present, if addressed as above to

D. K. MINOR, Agent.

A supply shortly expected from the N. York establishment, by the single barrel, or larger quantity. For sale by

SAML. SANDS,
je 19 office of the Farmer, Baltimore st.

FARMERS! EXAMINE FOR YOURSELVES!

The well selected stock of Implements belonging to JAMES HUEY & CO. No. 7 BOWLY'S WHARF, Baltimore. Our stock consists of a large lot of PLOUGHS, SHEARS, POINTS, and CULTIVATORS, which we will sell low to suit the times—among which rank the economical WILEY, and the MINOR & HORTON PLOUGH of the N York composition metal and manufacture—the share has a double point and edge, equal to two shares and points. We keep on hand all kinds of PLOUGHS, premium CORN SHELLERS, HAY & STRAW CUTTERS, Corn & Cob CRUSHERS, Horse RAKES, Corn and Tobacco HOES. ☞Farmers and Planters on the Eastern and Western Shores may send their orders with confidence, as they will be attended to with promptitude. We also keep GARDEN & FIELD SEEDS. Thankful for past favors, we hope to merit a continuance of the same. Agents for the above implements,

S. L. STEER, Market st. near the corner of Paca, Baltimore
E & W. BISHOP, Bel-air market. Baltimore. fe 28

PORTABLE TUBULAR STEAM GENERATOR.

The undersigned *successors to the late firm of Bentley, Randall & Co.* are manufacturing, and have constantly on hand a full assortment of the above Boilers, which within the last few months have undergone many improvements: we can now with confidence recommend them for simplicity, strength, durability, economy in fuel, time, labor and room, to surpass any other Steam Generator now in use. They are equally well adapted to the Agriculturist for cooking food for cattle and hogs, the Dyer, Hatter and Tanner for heating liquors, to Manufacturers (both Cotton and Woollen) for heating their mills, boiling sizing, heating cylinders, &c., to Pork Butchers for heating water for scalding hogs and for *rendering lard*, to Tallow Chandlers for melting tallow by circulation of hot water (in a jacket,) to Public Houses and Institutions for cooking, washing and *soap making*, and for many other purposes for all of which they are now in *successful* operation; the economy in fuel is almost incredible; we guarantee under all circumstances a saving of *two thirds*, and in many instances *fully three fourths*—numerous certificates from the very best of authority can be produced to substantiate the fact. We had the pleasure of receiving the premium for the best Steam Apparatus at the Agricultural Fair held at Govanstown in October 1843.

Manufactory, McCausland's old Brewery, Holliday st. near Pleasant st., Baltimore, Md.

Dec. 6. tf RANDALL & CO.

HARVEST TOOLS, &c.

ROBT. SINCLAIR, jr. and CO. No. 6 Light street, offer for sale Grain Cradles, with iron or wood braces, and warranted, Scythes attached, Scythes, Snathes, several sorts: grain, grass and bramble Scythes: horse and hand Rakes: Scythe Stones: composition Scythe Rifles: cradler's Hammers: Sickles, etc. etc.

Threshing Machines. Now manufacturing a superior lot of Threshing Machines and Horse Powers, made on the same plan as those of last season, which have given farmers the most perfect satisfaction. In store, corn and tobacco Cultivators, harrows, and ploughs, and agricultural machinery generally. Also, Rice's Patent wheat and corn Fans price 25 to $30 each. my 29

AGRICULTURAL IMPLEMENTS.

J. S. EASTMAN, at No. 36 West Pratt st. about half a square west of the Baltimore and Ohio rail road depot, has on hand a great variety of Plows and Plow Castings, and other Farming Implements at wholesale and retail, as follows, viz. his newly patented Cleazy self-sharpening plows of 7 different sizes, (and one large left hand do) he has many testimonies to show the superior merits of this implement.

Also—Gideon Davis' improved ploughs, of all sizes, wrought and cast shares, do do. Connecticut improved, a superior article for light soil; Evans' reverse point ploughs, with cast shares only; Wyman's No. O. self-sharpeners, various bar-share and coulter ploughs and superior side ploughs, etc. etc. Also, corn and tobacco Cultivators, wheat fans, cylindrical straw cutters of various sizes, a superior article; lime carts, superior Pennsylvania made grain Cradles; small Burr-stone Mills for driving by horse power or steam; Corn Shellers, Threshing Machines (and horse-powers for two or four horses) made very durable and to thresh clean. Bachelder's and Osgood's patent corn planters, etc. with a great variety of their implements made of the best materials and in the best manner. All the above are sold at reduced prices to suit the times. may 1

GROUND PLASTER.

The subscriber is now engaged in the grinding of Plaster of Paris, for agricultural purposes, and would respectfully inform Farmers and dealers that he is prepared to furnish it of the best quality at the lowest market price, deliverable in any part of the city, or on board Vessels free of expense, application to be made at the Union Plaster Mill, near the Glass House, or at the office No. 6 Bowly's Wharf, corner Wood street. P. S. CHAPPELL, or,

jan 3. WM. L. HOPKINS, Agent.

GUANO.

A fresh supply of Guano, just received and for sale by the bag, containing from 150 to 220 lbs.

SAMUEL SANDS,
May 15 at the office of the American Farmer.

Pulverization.  *Decomposition.*

A. G. MOTT,

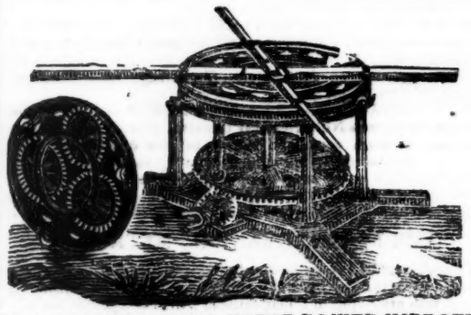
Corner Ensor and Forest streets, Baltimore, sole agent for the sale of "THE BOSTON CENTRE DRAUGHT PLOUGH," Prouty and Mears' self sharpening patent, with new patent gearing.

By this admirable arrangement, the labors of man and team are lessened one half, while the power and steadiness of draught obtained are so great that any depth of furrow is broken up, pulverized, and carried completely over, with perfect ease and facility, and the precision of the spade.

Prices from 7.50 to 13 dollars, with extra point and share. No extra charge for the new gearing. Castings always on hand.

"Spade labor, the perfection of good husbandry"

ap 17 tf



MARTINEAU'S IRON HORSE-POWER IMPROEVD

Made less liable to get out of order, and cheaper to repair, and at less cost than any other machine.

The above cut represents this horse-power, for which the subscriber is proprietor of the patent-right for Maryland, Delaware and the Eastern Shore of Virginia; and he would most respectfully urge upon those wishing to obtain a horse power, to examine this before purchasing elsewhere; for beauty, compactness and durability it has never been surpassed.

Threshing Machines, Wheat Fans, Cultivators, Harrows and the common hand Corn Sheller constantly on hand, and for sale at the lowest prices.

Agricultural Implements of any peculiar model made to order as the shorest notice.

Castings for all kinds of ploughs, constantly on hand by the pound or ton. A liberal discount will be made to country merchants who purchase to sell again.

Mr. Hussey manufactures his reaping machines at this establishment. R. B. CHENOWETH,
corner of Front & Ploughmans sts. near Baltimore st. Bridge, or No. 20 Pratt street. Baltimore, mar 31, 1841

HUSSEY'S REAPING MACHINES.

HEMP CUTTERS,
CORN & COB CRUSHERS,
CORN SHELLING and HUSKING MACHINES, &c.

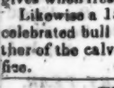
Made to order and kept for sale by the subscriber,
Ap. 17. OBED HUSSEY.

AYRSHIRE BULLS.

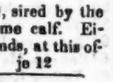
Several young Bulls for sale, of this valuable dairy stock; they are from stock selected with great care in Scotland, for a gentleman of this vicinity. One of the bulls is one year old—his appearance is impaired by an injury received in his hip from another bull, but not of a nature to prevent his being fit for service. Price $50 deliverable in this city. One other Bull, 4 months old, another 1 month old, dams very superior milkers: the dam of the younger gives when fresh between 7 and 8 gallons a day.

Likewise a 15-16 Durham bull Calf, 4 months old, sired by the celebrated bull "Washington Irving," a fine, handsome calf. Either of the calves can be had for $20. Call on S. Sands, at this office. je 12

FULL BRED DURHAM BULLS.



FOR SALE—4 full bred DURHAM BULL CALVES, from one to three months old—sired by an imported bull Magnum Bonum—who took the premium at the two last cattle shows. Enquire of



June 5 SAMUEL SANDS.

HORSE POWERS AND CORN CRUSHERS.

The subscriber has for sale the above Implements which he can recommend to all purchasers as being SUPERIOR ARTICLES. They are made with a view to strength, durability and efficiency, possess great power, are constructed upon the very simplest principles of mathematical exactitude, and are calculated to do as much work as the largest farmer can desire, and being free from complication, are not easily put out of order, and easy of repair. For proof of their intrinsic value, the subscriber refers to the following certificate from one of our most intelligent practical farmers, who combines with a knowledge of farming that of machinery, and is every way competent to pass a correct judgment.

GEORGE PAGE, Machinist,
West Baltimore st. Baltimore.

Orders and letters of inquiry, POST PAID, will be promptly attended to. feb 14

I hereby certify that I was one of the committee on Agricultural Implements and Machinery at the last fair of the Baltimore Co. Agricultural Society—that I attended the first day of examination but not the last: that after a full and fair examination of all the other machines of similar kinds, and an interchange of opinions among the judges, it was determined by a vote of 4 out of the 5 judges, to give Mr. GEORGE PAGE the first premium on his CORN and COB CRUSHER and HORSE POWER, they each being considered very superior, both in power and operation, as well as durability to any others on the ground. It was universally admitted, that the Corn and Cob Crusher could do twice as much work as any other machine of the kind on the ground—and I must confess, that I was both mortified and surprised, to find by the award of my co-judges, that they had changed their opinions after I left, and it had been agreed upon to award the above premiums to Mr. Page by so decided a vote as 4 to 1, that they should afterwards change that determination after I had left without consulting me is alike a matter of surprise and mortification. ABNER LINTHICUM, Jr.

JAMES MURRAY'S

PREMIUM CORN AND COB CRUSHERS.

These already celebrated machines have obtained the premium by a fair trial against the other Crushers exhibited at the Fair held at Govanstown, Balt. co. Md. Oct. 18th, 19th and 20th, 1843, and the increased demand enables the patentee to give further indecements to purchasers by fitting an extra pair of grinders to each machine without extra charge. Prices $25, 30, 35, 40, 45.

ALSO, small MILLS, which received a certificate of merit, for $15.

I have also superior CUTTING BOXES, such as will bear inspection by either farmers or mechanics.

Also, Horse Powers, Mills, Corn Shellers, Mill and Carry-log Screws, small Steam Engines, Turning Lathes, &c. &c.

Also, a second hand Steam Engine, 16 horse power, and the works for two Saw Mills.

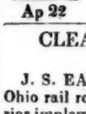
Any kind of Machine, Model or Mill-work built to order, and all mills planned and erected by the subscriber, warranted to operate well.

☞Orders can be left with J. F. Callan, Washington, D. C.; S. Sands, Farmer office; or the subscriber,

Mr. Abner Linthcum, jr., and all Machinests are invited to a fair trial of Grinding against my Corn and Cob Crushers, and if I do not do more work, taking the power, quantity, and quality into consideration, I will give them my machine gratice.

Patent Rights for sale by the subsbriber.

no 8 JAS. MURRAY, Millwright, Baltimore.



MANGELWURZEL AND FRENCH SUGAR BEET SEED,

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J. S. EASTMAN, Pratt street, a little west of the Baltimore & Ohio rail road Depot, would invite public attention to this superior implement, both as to its simplicity, cheayness and good work with light draft. He will furnish patterns to manufactureas living out of this state on reasonable terms. may 1

NEW PATENT CORN MILL,—CORN AND COB CRUSHER.

The subscribers have recently invented and constructed a Corn Mill and Crusher, to be worked by hand or horse power, which are remarkably simple and admirably adapted to the present wants of farmers. Either of the above machines may be seen in operation at our warehouse, No. 60, Light street.

ROBT. SINCLAIR, JR. & CO.
PRICES—Corn Crusher $30—Corn Mills $40. ap 29

SUPERIOR DURHAM STOCK.

The subscriber is authorised to sell the following thorough bred and very superior animals, the pick of the celebrated herd of S. Canby, esq. of Wilmington, Del. viz.

BEAUTY, MABEL and LOUISA, cows, the latter will calve in about a month—the two last could not have been purchased at the price now asked for them when 1 month old, and they are considered by Mr. Canby the best he ever bred. Price $100 each.

Likewise, two young BULLS, PRINCE and OSCAR, from 1 to 2 years old, also 100 dolls. each; and 3 or 4 younger animals, low in proportion. Mr. Canby paid 200 dollars for Beauty when a heifer. Mr. Canby's present arrangements being such as to make it requisite for him to part with his blooded stock, the above, which are the choicest thereof, are put at nearly half the price they have been hitherto held at, and presents an opportunity seldom obtained to secure thorough pedigreed and very superior stock, at comparatively very low prices. Further particulars can be obtained by addressing (post paid) Mr. S. Canby, Wilmington, Del. or the subscriber. S. SANDS.